XV

JOINT MESSAGE FORM

[redacted]

SPACE BELOW RESERVED FOR COMMUNICATION CENTER

CLASSIFICATION CHANGED TO [redacted]

By authority of 205-2
[illegible] 5 APR 1966

PRECEDENCE	TYPE MSG (Check)			ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
	BOOK	MULTI	SINGLE			
ACTION OPERATIONAL IMMEDIATE						
INFO OPERATIONAL IMMEDIATE						

FROM:

CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

TO:

HQ AFBMD, LOS ANGELES 43, CALIF

HQ 6594TH TEST WING (SATELLITE), SUNNYVALE, CALIF

LOCKHEED MISSILES & SPACE DIV, SUNNYVALE, CALIF

LOCKHEED MISSILES & SPACE DIV, VAFB, CALIF (COURIER)

DOUGLAS AIRCRAFT COMPANY, VAFB, CALIF (COURIER)

INFO: 1ST MISSILE DIVISION, VAFB, CALIF (COURIER)

AFBMD TECHNICAL EVALUATION STAFF, P.O. BOX 1567, VAFB, CALIF (COURIER)

SPECIAL INSTRUCTIONS

Cpy #2
Page 1 of 4

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS
DOD DIR 5200.10

SECRET/WDG-16-4-1-162

LOSA FOR WDZY; 6594TH TW FOR COL MOORE; LMSD/SUNNYVALE FOR DEPT 61-44 (B. W. MARSH); LMSD/VAFB FOR DEPT 65-44 AND 61-70; DAC FOR R. PURDY. INFO: 1MD FOR COMMAND POST; AFBMD TECH EVAL STAFF FOR MR. E. FISCHEL. SUBJECT: FOLLOW-ON REPORT TO FLASH REPORT OF LAUNCHING OF DISCOVERER XV (NIGHT SHIFT-PRESTO).

1. PRE-LAUNCH PHASE (1058)

1.1. DISCOVERER XV COUNTDOWN WAS INITIATED AT 0445 PDT ON 13

DATE	TIME
15	
MONTH	YEAR
SEP	1960

WRITER

SYMBOL
WDG-16-4

TYPED NAME AND TITLE (Signature, if required)
HAROLD M. POWELL, MAJ, USAF

PHONE 8-5050 | PAGE NR. 1 | NR. OF PAGES 4

SECURITY CLASSIFICATION [redacted]

RELEASER

SIGNATURE

TYPED (or stamped) NAME AND TITLE
WILLIAM F. HEISLER, LT COL, USAF
Chief, Satellite Systems Division

DD FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

AFBMD/FO Comeback Cy

JOINT MESSAGEFORM CONFIRMATION SHEET

SECURITY CLASSIFICATION: [redacted]

FROM: CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF [redacted]

SEP 1960. A HOLD WAS CALLED AT 0900 PDT (T-180) BECAUSE OF CONCERN ABOUT A MODIFICATION TO THE DESTRUCT SYSTEM. THIS HOLD WAS RELEASED AT 1007 PDT. A SECOND HOLD WAS CALLED AT 1159 PDT (T-61) BECAUSE OF A FUEL FLOW PROBLEM. IT WAS RELEASED AT 1341 PDT. A THIRD HOLD WHICH WAS CALLED AT 1414 PDT (T-30) TO REMEDY AND CLEAN UP AN ACID LEAK WAS RELEASED AT 1442. THE LAST HOLD WHICH WAS CALLED AT 1452 PDT (T-15) FOR RANGE SAFETY CLEARANCE WAS RELEASED AT 1500 PDT. THE KEY WAS TURNED AT 1500 PDT. THE TOTAL TERMINAL COUNTDOWN TIME WAS 13.66 MINUTES.

Cp #2
Page 2 of 4

2. EXIT PHASE

2.1. DURING THE FIRST PART OF THE LAUNCH PHASE THE SEQUENCE OF EVENTS OCCURRED AS FOLLOWS:

LIFT-OFF----------1513:39.45 PDT

MECO----------T/162.43 SECONDS

VECO----------T/171.94 SECONDS

START OF SEPARATION----------T/180.99 SECONDS

ORBITAL STAGE IGNITION----------T/279.82 SECONDS

ORBITAL STAGE BURNOUT----------T/397.07 SECONDS

2.2. ALL ENGINE PARAMETERS FUNCTIONED NORMALLY. THOR ENGINE PERFORMANCE WAS SATISFACTORY. NORMAL ENGINE START WAS FOLLOWED BY SATISFACTORY MAINSTAGE OPERATION WITH A CHAMBER PRESSURE OF APPROXIMATELY 530 PSI. MAIN ENGINE CUTOFF OCCURRED AT 162.43 SECONDS AS A RESULT OF LOX DEPLETION. VERNIER ENGINE SOLO CONTINUED FOR 9.51 SECONDS. THE AGENA PROPULSION SYSTEM OPERATION WAS NORMAL. THRUST ATTAINMENT TIME, COMBUSTION CHAMBER PRESSURE AND TURBINE SPEED DATA

JOINT MESSAGEFORM - CONTINUATION SHEET | SECURITY CLASSIFICATION: SECRET [redacted]

FROM:

CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

ALL INDICATE SATISFACTORY OPERATION. CHAMBER PRESSURE WAS ABOUT 507 PSI AND SPECIFIC IMPULSE APPROXIMATELY 277.0 SECONDS.

2.3. COMMAND 5 (DELAY IGNITION) WAS SENT AND RECEIVED FOR A DURATION OF 4.9 SECONDS. HOWEVER, THERE WAS AN ADDITIONAL DELAY IN IGNITION DUE TO ACTION OF THE FAIRCHILD "H" TIME FOR 2.3 SECONDS FOR A TOTAL EFFECTIVE DELAY OF IGNITION OF 7.2 SECONDS. COMMAND 6 (REDUCTION IN VELOCITY TO BE GAINED) WAS SENT AND RECEIVED FOR A DURATION OF 26.8 SECONDS. ORBITAL STAGE SHUT-DOWN OCCURRED BY PROPELLANT EXHAUSTION.

2.4. ORBITAL INJECTION VELOCITY WAS 26,000 FPS (INERTIAL REFERENCE). THE INTEGRATOR INDICATED HORIZONTAL VELOCITY GAIN WAS 13,470 FPS (120 FPS SHORT OF INTEGRATOR SHUTDOWN SETTING). INJECTION ALTITUDE ALONG THE LOCAL VERTICAL WAS APPROXIMATELY 131 STATUTE MILES BASED ON THE LMSD PT MUGU RADAR DATA. THE FLIGHT PATH DEPARTURE AZIMUTH ANGLE WAS APPROXIMATELY 176.0 DEGREES FROM THE PAD BASED ON THE PT MUGU RADAR PLOT BOARD CHARTS.

2.5. THE INJECTION ANGLE WAS APPROXIMATELY 0.0 DEGREES BASED ON THE LMSD PT MUGU RADAR CHART.

3. RADAR AND TELEMETRY

3.1. GOOD TRACK WAS ACHIEVED BY THE PT MUGU RADAR FROM ACQUISITION AT T/28 SECONDS AND LOCK ON AT T/44 SECONDS UNTIL SIGNAL FADE AND SIGNAL LOSS AT T/486 SECONDS. THE VAFB RADAR HAD GOOD TRACK UNTIL T/165 SECONDS AT WHICH TIME IT WENT PASSIVE AS PLANNED.

3.2. TELEMETRY RECEPTION AND RECORDING WERE SATISFACTORY AT BOTH VAFB AND PT MUGU, RECEIVING UNTIL T/490. THE SIGNAL STRENGTH

Gp #2
Page 3 of 4

SYMBOL	PAGE NO.	NR OF PAGES	SECURITY CLASSIFICATION	INITIALS
WDC-16-4	3	4	[redacted]	GW

DD FORM 1 MAY 55 173-1

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FROM: CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

WAS GOOD AND THE DATA WAS CLEAN. THE DOWN RANGE T/M SHIP HAD A SIGNAL RECEPTION FOR APPROXIMATELY 462 SECONDS STARTING AT T/271. AN ABNORMALITY WAS EVIDENT IN THE PNEUMATIC CONTROL SYSTEM DURING ASCENT AND ORBIT.

4. FOLLOW-ON TO PRIMARY OBJECTIVES

4.1. ALL PRIMARY OBJECTIVES OF THE LAUNCH PHASE WERE ACHIEVED.

5. PAD DAMAGE

5.1. PAD DAMAGE WAS MINOR. THE EXTENT OF DAMAGE WAS DESTRUCTION OF ONE SECTION OF THE AGENA AIR CONDITIONING DUCT, EIGHT FEET IN LENGTH, BY THOR BLAST. THE FOIL WRAPPING ON THE ELECTRICAL LINES IN THE VICINITY OF THE LAUNCHER BASE WILL REQUIRE REPLACEMENT.

SEE [illegible]

Cpy #2

Page 4 of 4

SYMBOL	PAGE NR.	NR OF PAGES	SECURITY CLASSIFICATION	INITIALS
WDG-16-4	4	4	[redacted]	[redacted]

DD FORM 1 MAY 55 173-1

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